CLAIMS:

1. A projection device for projecting an image comprising a light source for emitting light, a transmissive LCD projection subsystem and a projection means for projecting the image, said projection subsystem comprising:

- a waveguide integrator for guiding light from an entrance to an exit, the inner entrance surface of said integrator being coated with a reflective material and having a hole for coupling light emitted from said light source into said integrator,
- a reflective polarizer provided at the exit surface of said integrator for reflecting light having the wrong polarization back into said integrator,
- a transmissive LCD provided at the exit of said reflective polarizer for modulating the light transmitted by said polarizer, said LCD having an integrated reflective color filter array for reflecting light having the wrong color back into said integrator.

2. A projection device as claimed in claim 1, wherein said reflective color filter array comprises a dichroic mirror or a polymer layer.

3. A projection device as claimed in claim 1, wherein said reflective color filter array is located at the inner surface of one of the substrates of said LCD and between said polarizer and said LCD.

4. A projection device as claimed in claim 1, wherein said reflective color filter array comprises a number of color stripes having a 3:1 aspect ratio.

5. A projection device as claimed in claim 1, wherein said waveguide integrator further comprises retardation films for changing the polarization of light reflected back into the integrator.

6. A projection device as claimed in claim 1, wherein the surface of the LCD outside the visible window is made reflective.

7. A projection device as claimed in claim 1, wherein said reflective colour filter array has an orthogonal or a diagonal configuration.

8. A projection device as claimed in claim 1, wherein said integrator is made of a higher refractive index material for reflecting light.

9. A transmissive LCD projection device for use in a projection device for projecting an image as claimed in claim 1, comprising a light source for emitting light and a projection means, said projection device comprising:

- a waveguide integrator for guiding light from an entrance to an exit, the inner entrance surface of said integrator being coated with a reflective material and having a hole for coupling light emitted from said light source into said integrator,
- a reflective polarizer provided at the exit surface of said integrator for reflecting light having the wrong polarization back into said integrator,
- a transmissive LCD provided at the exit of said reflective polarizer for modulating the light transmitted by said polarizer, said LCD having an integrated reflective color filter array for reflecting light having the wrong color back into said integrator.

10. A method of projecting an image, the method comprising the steps of:

- emitting light using a light source,
- guiding light received from said light source at an entrance to an exit, using a waveguide integrator, the inner entrance surface of said integrator being coated with a reflective material and having a hole for coupling light emitted from said light source into said integrator,
- reflecting light having the wrong polarization back into said integrator, using a reflective polarizer provided at the exit surface of said integrator,
- modulating the light transmitted by said polarizer, using a transmissive LCD provided at the exit of said reflective polarizer, said LCD having an integrated reflective color filter array for reflecting light having the wrong color back into said integrator.